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EXAMINER	
NGUYEN, LUONG TRUNG	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/987,849	VIINIKANOJA ET AL.	
	Examiner	Art Unit	
	LUONG T. NGUYEN	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 November 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *106-108,110,112-116,119-121,124,125,127,129,144-148 and 157-177* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *106-108,110,112-116,119-121,124,125,127,129,144-148 and 157-177* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10/26/2010*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on 11/23/2010 have been fully considered but they are not persuasive.

In re pages 15-16, Applicants argue that providing a switch or a button for automated zooming of a single zoom lens does not teach, disclose or even suggest anything resembling the recited optical properties changing unit. In furtherance of this, each of the independent claims implicated in this rejection expressly recite that the optical properties changing unit "comprises at least one of the following: a lens, an objective comprising lenses, at least one filter, a diffractive optical element, and combinations thereof." Applicants respectfully submit that button 219 which adjusts "lens unit 213" does not teach, disclose or suggest any of these elements.

In response, regarding claim 106, Applicants recited limitation "an optical properties changing unit slidably integrated with a part of the housing including functionality of moving cooperate with the lens module of the camera system." The Examiner considers that claim 106 as recited still does not distinguish from Yoshida et al. in view of Tsukahara et al. references. It should be noted that the term "an optical properties changing unit" is not explicitly defined in claim 106, it's a broad term. The PTO must give claim words their broadest reasonable meaning in their ordinary usage, as understood by one of ordinary skill in the art. **In re Morris**, 127, F.3d 1048, 44 USPQ2d 1023 (Fed. Cir. 1997). In this case, Yoshida et al. disclosed that lens 108 is zoom lens of three-time magnification, which is structured to shift the zooming positions manually, for example, in terms of a 35 mm camera, it has focal length of 24 mm to 103 mm

(Column 7, lines 26-45). This indicates that the digital camera 100 includes a mechanism (such as a zoom button, a movable barrel for holding zoom lens) for shifting zooming positions manually, which changes the magnification of zoom lens 108, which corresponds to "an optical properties changing unit". When such zooming button is operated, the lens 108 is shifted to a position for taking pictures that reads on "including functionality of moving cooperate with the lens module of the camera system." Yoshida et al. only does not disclose such zoom button slidably integrated with a part of housing. However, this feature is taught by Tsukahara et al. Tsukahara et al. discloses an electronic camera which comprises a slide type switch function as a zooming button 219 (figure 14, column 14, lines 50-56).

In re page 17, Applicants argue that Yoshida does not teach, disclose or even suggest the feature of "an optical properties changing unit that is rotatably integrated with the housing," as claimed in claim 157.

In response, regarding claim 157, Applicants recited limitation "an optical properties changing unit rotatably integrated with a part of the housing including functionality of moving cooperate with the lens module of the camera system." The Examiner considers that claim 157 as recited still does not distinguish from Yoshida et al. in view of Mogamiya references. It should be noted that the term "an optical properties changing unit" is not explicitly defined in claim 157, it's a broad term. The PTO must give claim words their broadest reasonable meaning in their ordinary usage, as understood by one of ordinary skill in the art. **In re Morris**, 127, F.3d 1048, 44 USPQ2d 1023 (Fed. Cir. 1997). In this case, Yoshida et al. disclosed that lens 108 is zoom lens of three-time magnification, which is structured to shift the zooming positions

manually, for example, in terms of a 35 mm camera, it has focal length of 24 mm to 103 mm (Column 7, lines 26-45). This indicates that the digital camera 100 includes a mechanism (such as a zoom button, a movable barrel for holding zoom lens) for shifting zooming positions manually, which changes the magnification of zoom lens 108, which corresponds to "an optical properties changing unit". When such zooming button is operated, the lens 108 is shifted to a position for taking pictures that reads on "including functionality of moving cooperate with the lens module of the camera system." Yoshida et al. only does not disclose such zoom button rotatably integrated with a part of housing. However, this feature is taught by Mogamiya. Mogamiya discloses camera system which comprises a zoom lever 38 is rotated to carry out a zooming operation (figure 1, column 10, lines 32-51).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 106, 110, 112, 113, 116, 119-120, 124, 125, 127, 129, 144-148 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida et al. (U.S. Patent 6,690,417) in view of Tsukahara et al. (US 6,295,088).

Referring to claim 106, the Yoshida reference discloses in Figures 1 and 3, a mobile terminal device (100) comprising: a housing of the mobile terminal device comprising at least one telecommunications component and a camera system (See Col. 5, lines 23-30) comprising a

lens module (108) which enables taking pictures with optical imaging properties given by the lens module; an optical properties changing unit integrated into a part of the housing including functionality of moving to cooperate with the lens module of the camera system (Yoshida et al. disclosed that lens 108 is zoom lens of three-time magnification, which is structured to shift the zooming positions manually, for example, in terms of a 35 mm camera, it has focal length of 24 mm to 103 mm (Column 7, lines 26-45). This indicates that the digital camera 100 includes a mechanism (such as a zoom button, a movable barrel for holding zoom lens) for shifting zooming positions manually, which changes the magnification of zoom lens 108, which corresponds to "an optical properties changing unit"), so as to enable taking pictures using the camera system with changed optical imaging properties (Yoshida et al. disclosed that lens 108 is zoom lens of three-time magnification, which is structured to shift the zooming positions manually, for example, in terms of a 35 mm camera, it has focal length of 24 mm to 103 mm (Column 7, lines 26-45). This indicates that the digital camera 100 includes a mechanism (such as a zoom button, a movable barrel for holding zoom lens) for shifting zooming positions manually, it is clear that this mechanism is a part of the digital camera (a part of a housing)), wherein the optical changing unit comprises **at least one of** the following: a lens, an objective comprising lenses, at least one filter, a diffractive optical element, and combination thereof" (Since claim 106 recites limitation "**at least one of**", the Examiner considers that Yoshida still disclose claim limitation "wherein the optical changing unit comprises a lens," as a lens 108, Figure 1, Column 5, Lines 25-30).

Yoshida et al. does not disclose the optical properties changing unit slidably integrated with a part of the housing. However, Tsukahara et al. discloses an electronic camera which

comprises a slide type switch function as a zooming button 219 (figure 14, column 14, lines 50-56). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Yoshida et al. by the teaching of Tsukahara et al. in order to let a user perform easily zooming function in a camera.

Referring to claim 110, the Yoshida reference discloses wherein the camera system is built into said mobile terminal device as shown Figure 1.

Referring to claim 112, the Yoshida reference discloses wherein said mobile terminal device is a mobile phone as shown in Figures 1.

Referring to claim 113, the Yoshida reference discloses in Figures 1 and 3, a part of a housing of a mobile terminal device (100), which the mobile terminal device comprises at least one telecommunications component and a camera system, comprising:

an optical properties changing unit integrated into the part of the housing including functionality of moving to cooperate with a lens module of the camera system to enable taking pictures with optical properties given by the lens module and the optical properties changing unit when the optical properties changing unit is cooperating with the lens module (Yoshida et al. disclosed that lens 108 is zoom lens of three-time magnification, which is structured to shift the zooming positions manually, for example, in terms of a 35 mm camera, it has focal length of 24 mm to 103 mm, Column 7, lines 26-45. This indicates that the digital camera 100 includes a

mechanism (such as a zoom button, a movable barrel for holding zoom lens) for shifting zooming positions manually, which changes the magnification of zoom lens 108, which corresponds to "an optical properties changing unit"),

wherein the optical properties changing unit comprises **at least one of** the following: a lens, an objective comprising lenses, at least one filter, a diffractive optical element, and combination thereof" (Since claim 113 recites limitation "**at least one of**", the Examiner considers that Yoshida still disclose claim limitation "wherein the unit comprises a lens," as a lens 108, Figure 1, Column 5, Lines 25-30).

Yoshida et al. does not disclose the optical properties changing unit slidably integrated with a part of the housing. However, Tsukahara et al. discloses an electronic camera which comprises a slide type switch function as a zooming button 219 (figure 14, column 14, lines 50-56). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Yoshida et al. by the teaching of Tsukahara et al. in order to let a user perform easily zooming function in a camera.

Referring to claim 116, the Yoshida reference discloses wherein the optical changing unit comprises a plurality of different optical assemblies (e.g., changing focal length for zooming and changing F number fro setting optical apertures) integrated in the part of the housing, wherein the assembly is changeable upon actuation (See Column 7, Lines 20-54).

Referring to claim 119, the Yoshida reference discloses all subject matter as discussed with respected same comments to claims 112 and 113.

Referring to claim 120, the Yoshida reference discloses all subject matter as discussed with respected same comments to claim 113.

Referring to claim 124, the Yoshida reference discloses all subject matter as discussed with respected same comments to claim 119.

Referring to claim 125, the Yoshida reference discloses all subject matter as discussed with respected same comments to claims 106 and 113.

Referring to claim 127, the Yoshida reference discloses all subject matter as discussed with respected same comments to claim 110.

Referring to claim 129, the Yoshida reference discloses all subject matter as discussed with respected same comments to claim 112.

Referring claim 144, the Yoshida reference discloses all subject matter as discussed with respected same comments to claim 106.

Referring claims 145, 146, 147, 148, Yoshida et al. discloses wherein the housing is a unitary housing configured to cover the entire mobile terminal device (digital camera 100, Figure 1, Column 5, Lines 23-30).

4. Claims 107, 108, 114, 115, 121 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida et al. (U.S. Patent 6,690,417) in view of Tsukahara et al. (US 6,295,088) further in view of Suda et al. (U.S. Patent 6,373,524).

Referring to claim 107, the Yoshida reference discloses all subject matter as discussed with respected to claim 106, except that the Yoshida reference does not explicitly show the the optical properties changing unit is detachably connected with said camera system.

The Suda reference teaches in Figure 1, an interchangeable lens assembly (127) camera system including zoom and focus lenses (102 and 105), motors (121 and 125) for driving the zoom and focus lenses and controlled by motor control circuit (118) as providing the means for changing optical properties; and the interchangeable lens assembly is detachably connected with the camera system (camera main body 128, see Col. 5, lines 49-60). The Suda reference is evidence that one of ordinary skill in the art at the time to see more advantages the digital camera system having an interchangeable lens assembly (including optical properties changing unit)

detachably attached to the camera main body so that the camera system can easily work with different types interchangeable lenses (See Col.3, lines 9-21). For that reason, it would have been obvious to one of ordinary skill in the art to modify the camera system of Yoshida ('417) by providing means changing optical properties is detachably connected with the camera system as taught by Suda ('524).

Referring claim 108, the Yoshida and Suda references disclose all subject matter as discussed with respected same comments to claim 107.

Referring to claim 114, the Yoshida and Suda references disclose all subject matter as discussed with respected same comments to claim 107.

Referring to claim 115, the Yoshida and Suda references disclose all subject matter as discussed with respected same comments to claims 107 and 113, and Suda reference discloses wherein said part of said housing (camera) is detachably connected to a lens module.

Referring to claim 121, the Yoshida reference discloses all subject matter as discussed with respected same comments to claim 115.

5. Claims 157, 160-163, 166-169, 171-177 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida et al. (U.S. Patent 6,690,417) in view of Mogamiya (US 6,272,290).

Referring to claim 157, the Yoshida reference discloses in Figures 1 and 3, a mobile terminal device (100) comprising: a housing of the mobile terminal device comprising at least one telecommunications component and a camera system (See Col. 5, lines 23-30) comprising a lens module (108) which enables taking pictures with optical imaging properties given by the lens module; an optical properties changing unit integrated into a part of the housing including functionality of moving to cooperate with the lens module of the camera system (Yoshida et al. disclosed that lens 108 is zoom lens of three-time magnification, which is structured to shift the zooming positions manually, for example, in terms of a 35 mm camera, it has focal length of 24 mm to 103 mm (Column 7, lines 26-45). This indicates that the digital camera 100 includes a mechanism (such as a zoom button, a movable barrel for holding zoom lens) for shifting zooming positions manually, which changes the magnification of zoom lens 108, which corresponds to "an optical properties changing unit"), so as to enable taking pictures using the camera system with changed optical imaging properties (Yoshida et al. disclosed that lens 108 is zoom lens of three-time magnification, which is structured to shift the zooming positions manually, for example, in terms of a 35 mm camera, it has focal length of 24 mm to 103 mm (Column 7, lines 26-45). This indicates that the digital camera 100 includes a mechanism (such as a zoom button, a movable barrel for holding zoom lens) for shifting zooming positions manually, it is clear that this mechanism is a part of the digital camera (a part of a housing)), wherein the optical changing unit comprises **at least one of** the following: a lens, an objective comprising lenses, at least one filter, a diffractive optical element, and combination thereof"

(Since claim 106 recites limitation "**at least one of**", the Examiner considers that Yoshida still disclose claim limitation "wherein the optical changing unit comprises a lens," as a lens 108, Figure 1, Column 5, Lines 25-30).

Yoshida et al. does not disclose the optical properties changing unit rotatably integrated with a part of the housing. However, Mogamiya discloses camera system which comprises a zoom lever 38 is rotated to carry out a zooming operation (figure 1, column 10, lines 32-51). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Yoshida et al. by the teaching of Mogamiya in order to let a user perform easily zooming operation in a camera.

Referring to claim 160, the Yoshida reference discloses wherein the entire camera system is built-in the mobile terminal device as shown Figure 1.

Referring to claim 161, the Yoshida reference discloses wherein the mobile terminal device is a mobile phone as shown in Figures 1.

Referring claims 162, 168, 172, 177, Yoshida et al. discloses wherein the housing is a unitary housing configured to cover the entire mobile terminal device (digital camera 100, Figure 1, Column 5, Lines 23-30).

Referring to claim 163, the Yoshida reference discloses in Figures 1 and 3, a part of a housing of a mobile terminal device (100), which the mobile terminal device comprises at least one telecommunications component and a camera system, comprising:

an optical properties changing unit integrated into the part of the housing including functionality of moving to cooperate with a lens module of the camera system to enable taking pictures with optical properties given by the lens module and the optical properties changing unit when the optical properties changing unit is cooperating with the lens module (Yoshida et al. disclosed that lens 108 is zoom lens of three-time magnification, which is structured to shift the zooming positions manually, for example, in terms of a 35 mm camera, it has focal length of 24 mm to 103 mm, Column 7, lines 26-45. This indicates that the digital camera 100 includes a mechanism (such as a zoom button, a movable barrel for holding zoom lens) for shifting zooming positions manually, which changes the magnification of zoom lens 108, which corresponds to "an optical properties changing unit"),

wherein the optical properties changing unit comprises **at least one of** the following: a lens, an objective comprising lenses, at least one filter, a diffractive optical element, and combination thereof" (Since claim 113 recites limitation "**at least one of**", the Examiner considers that Yoshida still disclose claim limitation "wherein the unit comprises a lens," as a lens 108, Figure 1, Column 5, Lines 25-30).

Yoshida et al. does not disclose the optical properties changing unit rotatably integrated with a part of the housing. However, Mogamiya discloses camera system which comprises a zoom lever 38 is rotated to carry out a zooming operation (figure 1, column 10, lines 32-51). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention

was made to modify the device in Yoshida et al. by the teaching of Mogamiya in order to let a user perform easily zooming operation in a camera.

Referring to claim 166, the Yoshida reference discloses wherein the optical changing unit comprises a plurality of different optical assemblies (e.g., changing focal length for zooming and changing F number fro setting optical apertures) integrated in the part of the housing, wherein the assembly is changeable upon actuation (See Column 7, Lines 20-54).

Referring to claim 167, the Yoshida reference discloses all subject matter as discussed with respected same comments to claim 161.

Referring to claim 169, the Yoshida reference discloses all subject matter as discussed with respected same comments to claim 163.

Referring to claim 171, the Yoshida reference discloses all subject matter as discussed with respected same comments to claim 161.

Referring to claim 173, the Yoshida reference discloses all subject matter as discussed with respected same comments to claim 157.

Referring to claim 174, the Yoshida reference discloses all subject matter as discussed with respected same comments to claim 157.

Referring to claim 175, the Yoshida reference discloses all subject matter as discussed with respected same comments to claim 160.

Referring to claim 176, the Yoshida reference discloses all subject matter as discussed with respected same comments to claim 161.

6. Claims 158-159, 164-165, 170 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida et al. (U.S. Patent 6,690,417) in view of Mogamiya (US 6,272,290) further in view of Suda et al. (U.S. Patent 6,373,524).

Referring to claim 158, the Yoshida reference discloses all subject matter as discussed with respected to claim 157, except that the Yoshida reference does not explicitly show the the optical properties changing unit is detachably connected to the camera system.

The Suda reference teaches in Figure 1, an interchangeable lens assembly (127) camera system including zoom and focus lenses (102 and 105), motors (121 and 125) for driving the zoom and focus lenses and controlled by motor control circuit (118) as providing the means for changing optical properties; and the interchangeable lens assembly is detachably connected with the camera system (camera main body 128, see Col. 5, lines 49-60). The Suda reference is

evidence that one of ordinary skill in the art at the time to see more advantages the digital camera system having an interchangeable lens assembly (including optical properties changing unit) detachably attached to the camera main body so that the camera system can easily work with different types interchangeable lenses (See Col.3, lines 9-21). For that reason, it would have been obvious to one of ordinary skill in the art to modify the camera system of Yoshida ('417) by providing means changing optical properties is detachably connected with the camera system as taught by Suda ('524).

Referring claim 159, the Yoshida and Suda references disclose all subject matter as discussed with respected same comments to claim 158.

Referring to claim 164, the Yoshida and Suda references disclose all subject matter as discussed with respected same comments to claim 158.

Referring to claim 165, the Yoshida and Suda references disclose all subject matter as discussed with respected same comments to claims 164 and 163, and Suda reference discloses wherein said part of said housing (camera) is detachably connected to a lens module.

Referring to claim 170, the Yoshida reference discloses all subject matter as discussed with respected same comments to claim 165.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LUONG T. NGUYEN whose telephone number is (571)272-7315. The examiner can normally be reached on 7:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, DAVID L. OMETZ can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/LUONG T NGUYEN/
Primary Examiner, Art Unit 2622
02/13/11